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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,608

04/02/2004

Koji Sonoda

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24956

7590

11/29/2006

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
1800 DIAGONAL ROAD
SUITE 370
ALEXANDRIA, VA 22314

EXAMINER

MEUCCI, MICHAEL D

ART UNIT

PAPER NUMBER

2142

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/817,608

Applicant(s)

SONODA ET AL.

Examiner

Michael D. Meucci

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the request for reconsideration filed 31 August 2006.
2. Claims 1-21 remain pending.
3. Claim 22 is cancelled.

Response to Amendment

4. The examiner acknowledges the amendments made to overcome the minor informalities of claims 1 and 8. These objections have been withdrawn.
5. The examiner acknowledges the amendments made to overcome the rejection under 35 U.S.C. 112, second paragraph to claim 2. This rejection has been withdrawn.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1-4, 10-13, 19, and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon et al. (U.S. 6,886,019 B1) hereinafter referred to as Cannon in view of Ono et al. (U.S. 5,539,885) hereinafter referred to as Ono.

- a. As per claims 1, 19, and 21, Cannon teaches: a first computer that receives access requests to files from at least one client computer (lines 38-40 and 55-56 of column 3); a first storage device system that is connected to the first computer

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and stores file management information (lines 43-46 of column 1); a second computer that receives access requests to data from the first computer (lines 35-43 of column 5); a second storage device system that is connected to the second computer and stores file data (lines 35-43 of column 5); and a network that connects to the at least one client computer, the first computer and the second computer (lines 35-37 of column 1); wherein, upon receiving file data from the at least one client computer, the first computer assigns first identification information to the file data, and stores the file data in the second storage device system through the second computer (lines 11-24 of column 2); the first storage device system stores the first identification information assigned to the file data by the first computer, and a file name of a file having the file data designated by the at least one client computer as said file management information (lines 11-24 of column 2); the first computer stores the write data, through the second computer, in a storage region within the second storage device system that is different from a storage region that stores the file data already stored in the second storage device system (lines 40-55 of column 1 and lines 49-54 of column 3); and the first computer correlates the second identification information to the filename of the file and to the first identification information and stores the second identification information in the first storage device system (lines 49-55 of column 1).

While Cannon teaches file access and assigning to write data received from the at least one client computer with the write request second identification information different from the first identification information assigned to the file data of the file stored in the second storage device system (lines 38-48 of column 3), Cannon does not

explicitly teach: wherein upon receiving from the at least one client computer, a write request requesting write access to a file, which is the target of the write request, the first computer search an open file table, which registers in corresponding relation file names used by the at least one client computer to designate files and first identification information of files that are open, to obtain first identification information of the file. However, Ono discloses: "On receiving the file opening request as well as the network name "aaa/abc," the connection controller 13 of the server 1 searches through the open file table 11 to see if the file 18 designated by the network name "aaa/abc" is already opened," (lines 32-37 of column 4 and Fig. 8-13). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to wherein upon receiving from the at least one client computer, a write request requesting write access to a file, which is the target of the write request, the first computer search an open file table, which registers in corresponding relation file names used by the at least one client computer to designate files and first identification information of files that are open, to obtain first identification information of the file. "Thus the connection controller 13 judges that the target file 18 can be opened, and causes the disc controller 15 to open the file 18 on the magnetic disc 17. If the file 18 is successfully opened, the connection controller 13 additionally stores in the open file table 11 the relationship between the network name, path name and the file identifier in connection with the opened file. FIG. 9 shows a typical open file table 11 generated after the additional storage of the above mentioned relationship therein. Through the transmitter-receiver 16, communication line 2 and transmitter-receiver 37, the connection controller 13 notifies the connection

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controller 35 that the target file has been successfully opened. If the target file is already opened so that the attempt to open it has failed, the connection controller 35 notifies the application program 31 of the failure to open the file," (lines 49-64 of column 4 in Ono).

It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to wherein upon receiving from the at least one client computer, a write request requesting write access to a file, which is the target of the write request, the first computer search an open file table, which registers in corresponding relation file names used by the at least one client computer to designate files and first identification information of files that are open, to obtain first identification information of the file in the system as taught by Cannon.

b. As per claim 2, Cannon teaches: the second storage device system includes file containers that store file data wherein the write data is stored in a file container, which is different from a file container that stores the file data of the file (lines 40-55 of column 1 and lines 5-26 of column 4).

c. As per claim 3, Cannon teaches: a third computer that receives an access request to a file from the at least one client computer, converts the access request received into an access request according to a protocol that is used by the first computer, and transmits the access request converted to the first computer (lines 14-29 of column 5).

d. As per claim 4, Cannon teaches: wherein the second storage device system further includes view data having at least one pair of a file name of a file and identification information of the file (lines 43-55 of column 1); the first storage device

system further includes view management information including storage location of the view data (lines 49-51 of column 1); and the first computer, upon receiving from the at least one client computer a view data read request, reads the view data from the second storage device system through the second computer based on the view management information stored in the first storage device system (line 56 of column 1 through line 3 of column 2).

e. Claims 10-13 contain similar limitations as those disclosed in claims 1-4 and are rejected under the same rationale.

8. Claims 5-8 and 14-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon and Ono as applied to claims 4 and 13 above, in view of Schneider (U.S. 6,944,658 B1).

a. As per claim 5, Cannon does not explicitly teach: the second storage device system stores the view data correlated with time information, and the view data includes a pair of a file name of a file corresponding to file data and identification information of the file stored in the second storage device system at a time indicated by the time information correlated with the view data. However, Schneider discloses: "The database may have a data structure (as illustrated in FIG. 7b) including server name, directory path, previous file count with timestamp, and temp filename, etc. Each data record represents at least one subscriber or user request," (lines 47-51 of column 11). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the second storage device system store the view data

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correlated with time information, and the view data include a pair of a file name of a file corresponding to file data and identification information of the file stored in the second storage device system at a time indicated by the time information correlated with the view data. "Data records may be retrieved in step 830 until the last data record of the database is accessed in step 815 (equivalent to EOF). It may then be determined in step 820 whether the retrieval process is to continue by accessing in step 825 the first data record (creating a circular database," (lines 51-55 of column 11 in Schneider). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the second storage device system store the view data correlated with time information, and the view data include a pair of a file name of a file corresponding to file data and identification information of the file stored in the second storage device system at a time indicated by the time information correlated with the view data in the system as taught by Cannon.

b. As per claims 6 and 7, Cannon teaches: the first computer, upon receiving a creation request to create a new file from the at least one client computer or a write request, stores in the second storage device system through the second computer a pair of a file name of the new file created and identification information of the new file and view data having a pair of a file name of another file and identification information of the other file stored in the second storage device system (lines 43-55 of column 1 and lines 15-24 of column 2). Cannon does not explicitly teach: time information indicating the time when the new file is created or when the write data is written. However, these

limitations are disclosed in the teachings of Schneider as described above in the rejection of claim 5.

c. As per claim 8, Cannon teaches: first computer, upon receiving a view data read request from the at least one client computer (lines 38-45 of column 3). Cannon does not explicitly teach: selecting time information among the time information correlated to the view data which is older than but latest to the time information included in the view data read request, reads from the second storage device system through the second computer view data correlated to the time information selected, and transmits the view data read to the client computer. However, these limitations are disclosed in the teachings of Schneider as described above in the rejection of claim 5.

d. Claims 14-17 contain similar limitations as those disclosed in claims 5-8 and are rejected under the same rationale.

9. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon and Ono as applied to claim 1 above, in view of Larson et al. (U.S. 6,556,904 B1) hereinafter referred to as Larson.

As per claim 9, Cannon does not explicitly teach: a third computer that checks if a client computer has an access right to access files, wherein the first computer, upon receiving from the at least one client computer a file access request to access a file, transmits an access right check request to the third computer, and decides whether or not to execute an access processing for accessing the file according to the file access request sent from the client computer depending on an access right check result

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received from the third computer. However, Larson discloses: "Several different methods may be utilized to determine if a user's access authorization to the remote system has expired. For example in one embodiment, a database of authorized users is maintained on the remote system, which includes a expiration timestamp for each authorized user's access authorization," (lines 38-43 of column 7). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have a third computer that checks if a client computer has an access right to access files, wherein the first computer, upon receiving from the at least one client computer a file access request to access a file, transmits an access right check request to the third computer, and decides whether or not to execute an access processing for accessing the file according to the file access request sent from the client computer depending on an access right check result received from the third computer. "When access to the remote system is requested by the user, the expiration timestamp for that user is compared against the current remote system timestamp, typically represented by the current time and date. If the comparison indicated that the expiration timestamp has passed, access to the remote system will be denied," (lines 45-50 of column 7 in Larson). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have a third computer that checks if a client computer has an access right to access files, wherein the first computer, upon receiving from the at least one client computer a file access request to access a file, transmits an access right check request to the third computer, and decides whether or not to execute an access processing for accessing the file according to the file access

request sent from the client computer depending on an access right check result received from the third computer in the system as taught by Cannon.

10. Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon and Ono as applied to claims 19 and 21 above, in view of Nakos et al. (U.S. 2002/0049744 A1) hereinafter referred to as Nakos.

As per claim 20, Cannon teaches: a step of receiving by the third computer an access request to a file from at least one client computer (lines 14-29 of column 5). Cannon does not explicitly teach: the computer system further includes a third computer to execute protocol conversion, and a step for converting the access request received into an access request according to a protocol that is used by the first computer, and transmitting the access request converted to the first computer. However, Nakos discloses: "The web database software is a software module that translates web requests into database requests," (paragraph [0074] on page 6). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the computer system further include a third computer to execute protocol conversion, and a step for converting the access request received into an access request according to a protocol that is used by the first computer, and transmitting the access request converted to the first computer. "For example, the web requests may arrive according to HTTP protocol, and be converted by the web database software to conform to the database language used by the database server employed by the appliance (e.g. SQL or PL/SQL)," (paragraph [0074] on page 6 of Nakos). It is for this reason that one of

ordinary skill in the art at the time of the applicant's invention would have been motivated to have the computer system further include a third computer to execute protocol conversion, and a step for converting the access request received into an access request according to a protocol that is used by the first computer, and transmitting the access request converted to the first computer in the system as taught by Cannon.

Response to Arguments

11. Applicant's arguments filed 31 August 2006 have been fully considered but they are not persuasive.

12. (A) The applicant generally argues that Cannon differs from the instant application because the main objective of Cannon is to generating a copy set in such a manner so as to minimize mounting and positioning of the storage volumes while the instant application is directed to provide a system which manages files stored in storage systems such that different identification information is assigned to each file data of a file stored in the storage systems based on request from client computer in a way such that the identification information and file names designated by the client computers are managed in correlation with each other.

In response to applicant's argument that Cannon is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was

concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, as briefly explained above by the applicant, both the instant application and Cannon are directed towards file management in storage systems. Additionally, the claims of the instant application are written so broadly as to encompass an extremely wide scope. Nonetheless, Cannon taught all the limitations of the independent claims and is clearly analogous art.

13. (B) The applicant's remaining arguments pertain to newly added subject matter. See new grounds of rejection necessitated by amendments above.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kayashima et al. (U.S. 5,919,258) discloses security systems and accessing files through an open file table.

Miyazaki et al. (U.S. 6,125,428) discloses open file table access for determining whether files are in use.

Arai et al. (U.S. 2001/0025311 A1) discloses access control and open file tables.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell, can be reached at (571) 272-3868. The fax phone number for this Group is 571-273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a

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possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Beatriz Prieto
BEATRIZ PRIETO
PRIMARY EXAMINER